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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,780	07/14/2003	Samuel D. Hawkins	1249-000019	7324

27572 7590 04/12/2006

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EXAMINER
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BASICHAS, ALFRED

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/618,780

Applicant(s)

HAWKINS ET AL.

Examiner

Alfred Basichas

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 1,2,9-12 and 20 is/are rejected.
- 7) ☒ Claim(s) 3-8,13-18,21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/14/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 9, 12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Forster (1,908,135), which shows all of the claimed limitations. Forster shows, among other things,

1. A burner (see at least fig. 1), comprising: a burner body 10,11,12 including an inlet opening at one end 10 thereof and an outlet opening 12 at a second end thereof; a nozzle assembly 21,24 disposed in said outlet opening of said burner body, said nozzle assembly including a disc-like member 24 having a central hole 26 therein and a plurality of radially spaced holes 27 spaced around a perimeter of said central hole, and a tube member 21 disposed in said central hole and extending axially beyond said outlet opening of said burner body (see at least fig. 1).

2. The burner according to claim 1, wherein said tube member includes a first end 19 and a second end 21 wherein said first end has a larger diameter than said second end (see at least fig. 1).

9. A nozzle for a burner, comprising: a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole; and a tube member disposed in said central hole and including a first end and a second end wherein said first end has a larger diameter than said second end. (see previous claims)

12. A burner, comprising: a burner body including an inlet opening at one end thereof and an outlet opening at a second end thereof; a nozzle assembly disposed in said outlet opening of said burner body, said nozzle assembly including a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole, and a tube member disposed in said central hole, said tube member including an upstream end and a downstream end wherein said upstream end has a larger diameter than said downstream end. (see previous claims)

20. A method of tuning a burner for use in different applications, comprising the steps of: providing an elongated burner body having an inlet opening and an outlet opening; mounting a nozzle assembly in said outlet opening of said

Art Unit: 3749

elongated burner body, said nozzle assembly including a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole, and a tube member disposed in said central hole, said tube member being positioned to extend axially from a front and rear surface of said disc-like member such that an axial position thereof is predetermined based upon the burner application. (see previous claims)

It should be understood that it is inherent that the relative position of the tube is "predetermined", so as to attain the desired flow parameters.

3. Claims 9 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hollingshead (5,186,620), which shows all of the claimed limitations. Hollingshead shows, among other things,

9. A nozzle for a burner, comprising: a disc-like member 20 having a central hole 30 therein and a plurality of radially spaced holes 31 spaced around a perimeter of said central hole; and a tube member 30 (integral) disposed in said central hole and including a first end and a second end wherein said first end has a larger diameter than said second end. (see at least fig. 5)

20. A method of tuning a burner for use in different applications, comprising the steps of: providing an elongated burner body having an inlet opening and an outlet opening; mounting a nozzle assembly in said outlet opening of said elongated burner body, said nozzle assembly including a disc-like member having a central hole therein and a plurality of radially spaced holes spaced around a perimeter of said central hole, and a tube member disposed in said central hole, said tube member being positioned to extend axially from a front and rear surface of said disc-like member such that an axial position thereof is predetermined based upon the burner application. (see previous claim)

It should be understood that it is inherent that the relative position of the tube is "predetermined", so as to attain the desired flow parameters.

4. Claims 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogden (4,702,691), which shows all of the claimed limitations. Ogden shows, among other things,

9. A nozzle for a burner, comprising: a disc-like member (see at least end cap in fig. 5) having a central hole (hollowed out space) therein and a plurality of radially spaced holes 82 spaced around a perimeter of said central hole; and a tube member 84 disposed in said central hole and including a first end and a second end wherein said first end has a larger diameter than said second end (see at least fig. 5).

10. The nozzle according to claim 9, wherein said tube member is welded to said disc-like member.

11. The nozzle according to claim 9, wherein said center hole in said disc-like member has a diameter that is greater than half of a diameter of said disc-like member.

***Allowable Subject Matter***

5. Claim 19 is allowed.
6. Claims 3-8, 13-18, 21 and 22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred Basicas whose telephone number is 571 272 4871. The examiner can normally be reached on Monday through Friday during regular business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571 272 4828. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center telephone number is 571 272 3700.

April 10, 2006

  
Alfred Basicas  
Primary Examiner